

VIDEO TRANSMITTER & RECEIVER with POWER, CONTROL DATA

Video + Power + Data (VPD) TRANSMITTER

DMS-200CP, DCT-107/ DCT-407

Integration User's Guide

DMS-200SeC



DCT-107/ DCT-407

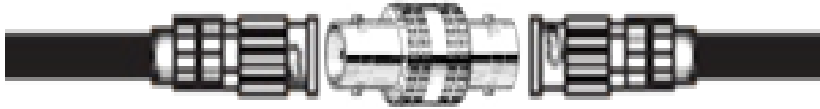


D-MAX

Coaxial cable connection



- When you want to extend or terminate coaxial cable, connect the cable as below.

- BNC-M – BNC (JJ extension connector) – BNC-M



- Coaxial cable's terminate part (Connect to receiver) has to connect BNC-F or F connector as above.

Please do not connect an RCA cable with Coaxial cable.

| | | |
|------|---|---|
| Good |  | Connecting a 75Ω BNC-F connector at the terminal of coaxial cable |
| Bad |  | Twist coaxial cable or connect with RCA cable by tapping |

1. Introduction

1-1. Concept

1CH/4CH Power, Data, Video Transmitters were organized with PTZ Camera (DMS-200CP) and DCT-107/ DCT-407.

Power + Data + Video Transmitter has RS-485 interface, A large output of Power, and long distance transmission functions. So, it's possible to save the construction period and cost together.

1-2. Feature



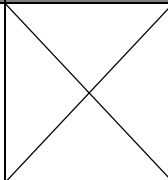






- Power + Data + Video on One cable transfer
- RS-485 Interface (DCT-107 / DCT-407 to PTZ CAM, One Way)
- Excellent Noise Reduction for High quality picture image
- Productivity of construction would be improved due to One cable wiring
- Safety Power transmission by Automatic Wire Checking function
- The Surge Protection function was included in the Transmitter for safety.
- The Alarm In & Out function supports Emergency Alarm, Siren, and Warning Light.

1-3. Video signal, Data signal and power transmission distance as coaxial cable type.

| Cable type | DC Resis.Ω /200m | Inner conductor | | Operation distance (m) | |
|------------|------------------|-----------------|-----------|------------------------|------------------|
| | | Copper Type | Dia. (mm) | Video+DATA | Video+DATA+POWER |
| ECX 3C-2V | 18.28 | Annealed | 0.5 | 560 | 340 |
| ECX 5C-2V | 8.48 | Annealed | 0.8 | 880 | 750 |
| 5C-HFBT | 20 | Bare | 1.02 | 990 | 310 |
| | 8.32 | Annealed | 1.2 | 1,100 | 750 |
| 7C-HFBT | 7.6 | Bare | 1.63 | 1,480 | 830 |
| | 3.96 | Annealed | 1.8 | 1,480 | 1,390 |
| RG-59/U | 9.1 | Annealed | 0.81 | 790 | 690 |
| RG-6/U | 6.1 | Annealed | 1.01 | 990 | 990 |
| RG-11/U | 3.7 | Annealed | 1.63 | 1,400 | 1,400 |
| RG-11A/U | 6.2 | Bare | 1.63 | 1,030 | 1,030 |

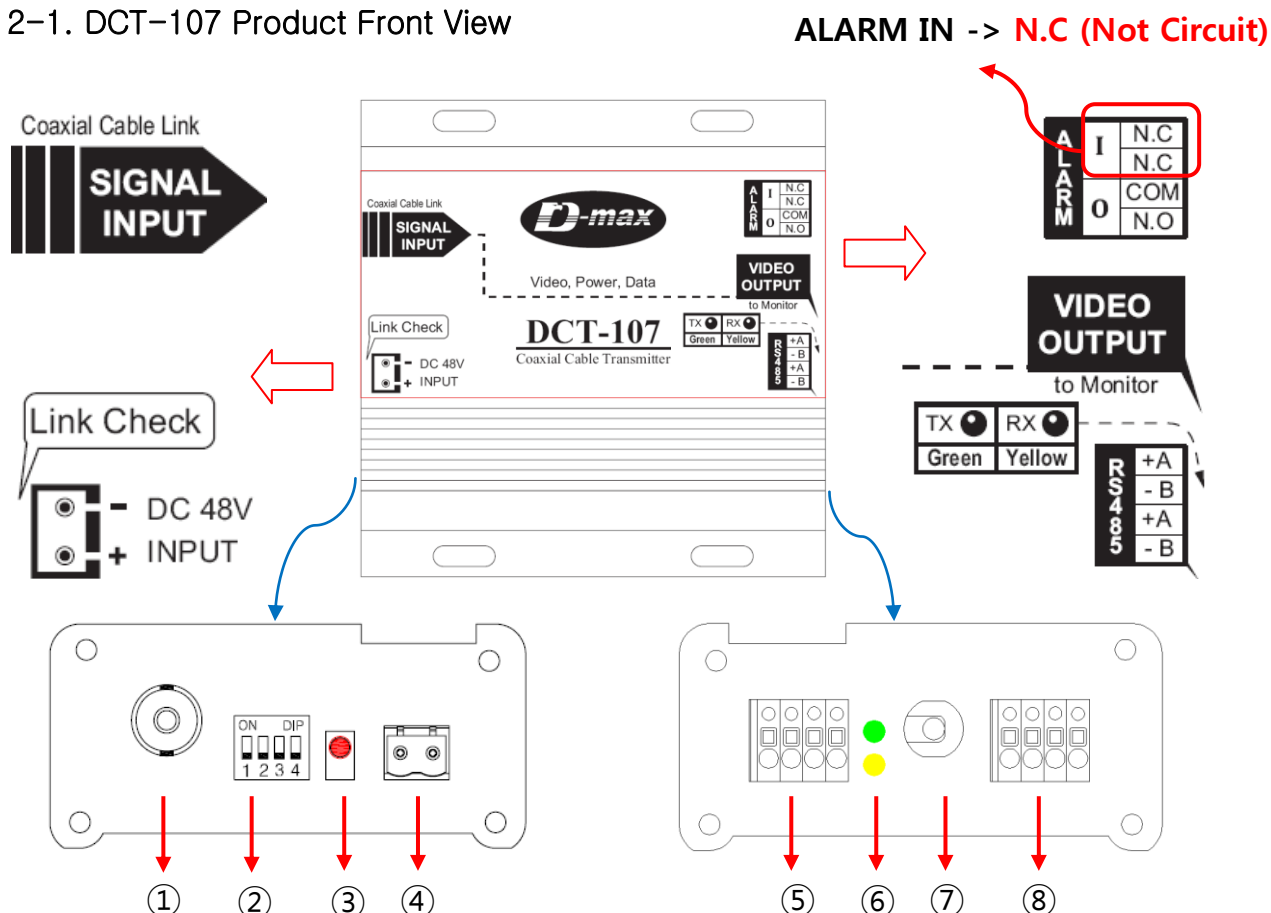
※ The operation distance could be changed according to installation condition or cable connection status

1-4. Product Configuration per each Model

| Model | Camera | Transmitter | Bracket | Power Supply | Manual |
|---------|---|---|--|---|---|
| DCT-107 |  |  |  |  |  |
| DCT-407 | |  |  |  |  |

2. Product Front View and Setting Up

2-1. DCT-107 Product Front View



1) BNC-F: Connect to camera with Coaxial cable

2) DIP Switcher : Set-up the BAUDRATE

| MODE | | Switcher NO. | | | |
|---------------------|--------------------|--------------|-----|-----|-----|
| | | 1 | 2 | 3 | 4 |
| Set-up the BAUDRATE | 9600 bps (Default) | ON | OFF | OFF | OFF |
| | 4800 bps | OFF | ON | OFF | OFF |
| | 2400 bps | OFF | OFF | ON | OFF |
| | Auto Test Mode | OFF | OFF | OFF | OFF |

※ Auto Test Mode, as it used for Quality Test on shipping, is not recommended for common use.

※ DIP Switcher #4 is a switch to select terminating resistance.

> OFF: To release terminating resistance (Factory Default Value)

ON: To set terminating resistance

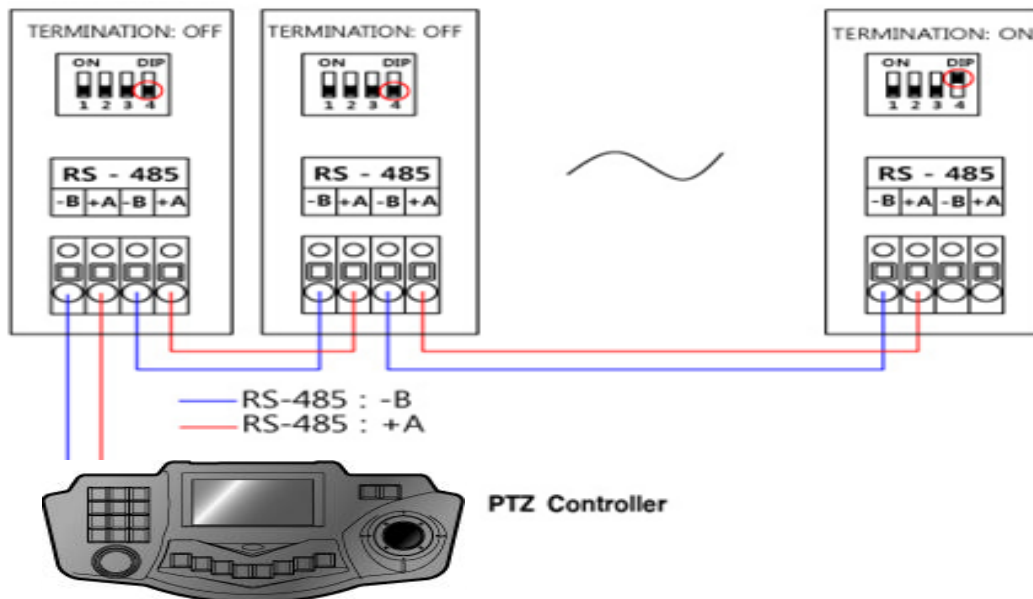
– Factory Default Value is 9600bps.

– How to set RS-485 terminating resistance

• When you use RS-485 data line of DVR or Controller with other equipments other than DCT-107, set as “OFF”.

• On using only DCT-107, set as “ON”.

- If you connect many TX (DCT-107) to one PTZ Controller, connect as below picture. Set TX 4th Switch looped through as “OFF” and set TX 4th Switch connected to final termination as “ON”

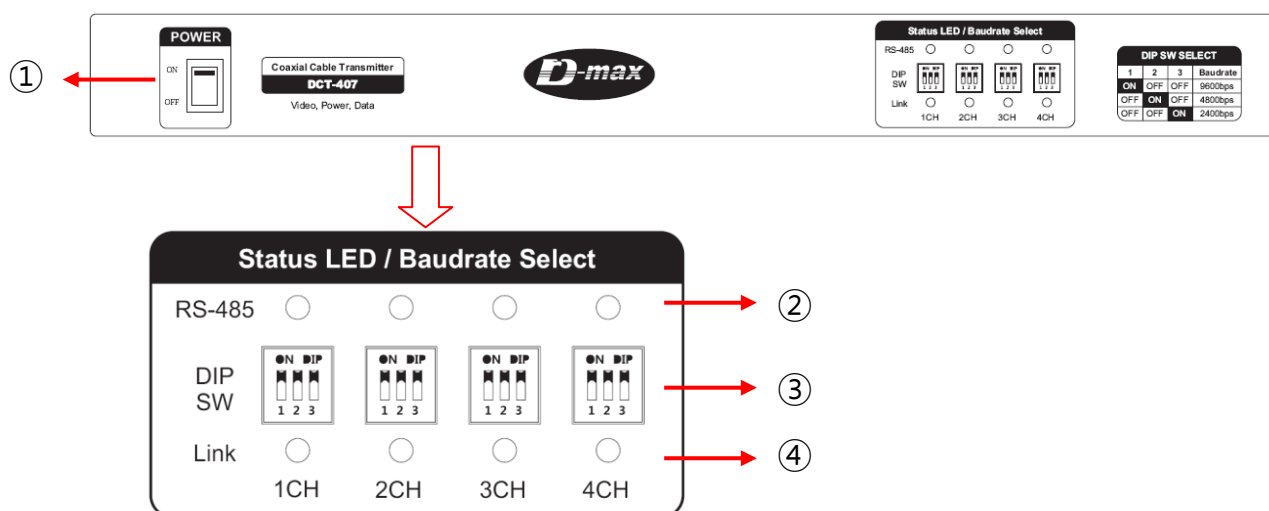


※ On using many DCT-107 equipments, how to connect and set terminating resistance

- 3) Link Status Marking LED
 - RED LED: On accepting power, switch will be flickering (on and off).
As normally linked, the light will be on.
- 4) 2P T. Block: DC 48V IN (Use the provided Power Supply)
- 5) 4P Terminal Block: ALARM OUT
Receiver (CAMERA) sends an Alarm signal to Transmitter (DCT-107).
Then Transmitter's Relay controls the Output Device of Contact Point.
(Normal Open -> When an Alarm signal input, the Output Device of Contact Point would be closed.)
- 6) BNC CABLE
 - VIDEO OUT: Connected to DVR or Monitor
- 7) Communication Status Marking LED
 - GREEN LED: OFF state => Maintain Green Light
Data transfer / Alarm Input => Flickering Green Light
 - YELLOW LED: Power On => Light On
Data Input => Flickering Light
- 8) 4P Terminal Block
 - RS-485 Interface : connect with Controller
 - Please check RS-485 "+" or RS-485 "-", and then connect it with device.

2-2. DCT-407

– Front view



- 1) AC Main Power Switcher
 - Before Installation, Please “Turn Off” the power and then start to install.
- 2) Data Indication LED
 - GREEN LED: OFF state => Maintain Green Light
Data Transfer / Alarm Input => Flickering Green Light
 - RED LED: OFF state => Maintain Red Light
Data Input => Flickering Red Light

3) DIP Switcher : Set-up the BAUDRATE

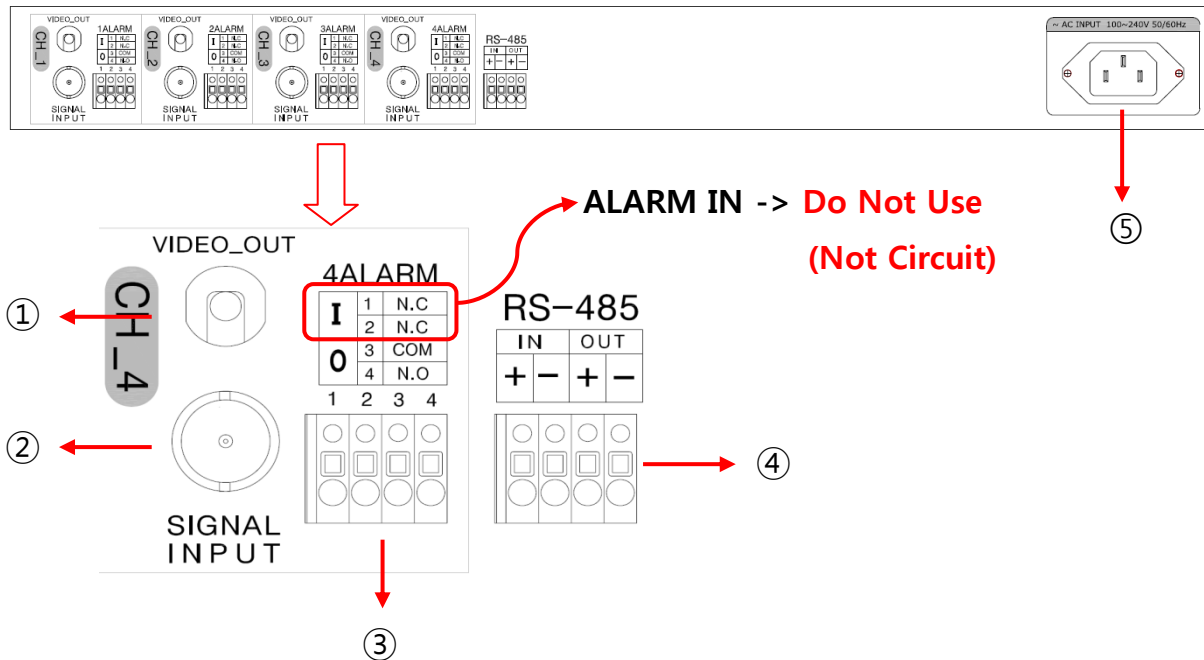
| MODE | | Switcher NO. | | |
|---------------------|--------------------|--------------|-----|-----|
| | | 1 | 2 | 3 |
| Set-up the BAUDRATE | 9600 bps (Default) | ON | OFF | OFF |
| | 4800 bps | OFF | ON | OFF |
| | 2400 bps | OFF | OFF | ON |
| | Auto Test Mode | OFF | OFF | OFF |

※ Auto Test Mode, as it used for Quality Test on shipping, is not recommended for common use.

- Factory Default Value is 9600bps.

- 4) Link Indication LED
 - RED LED: OFF state => Maintain Red Light
Normal LINK state => Flickering Red Light

– Rear view

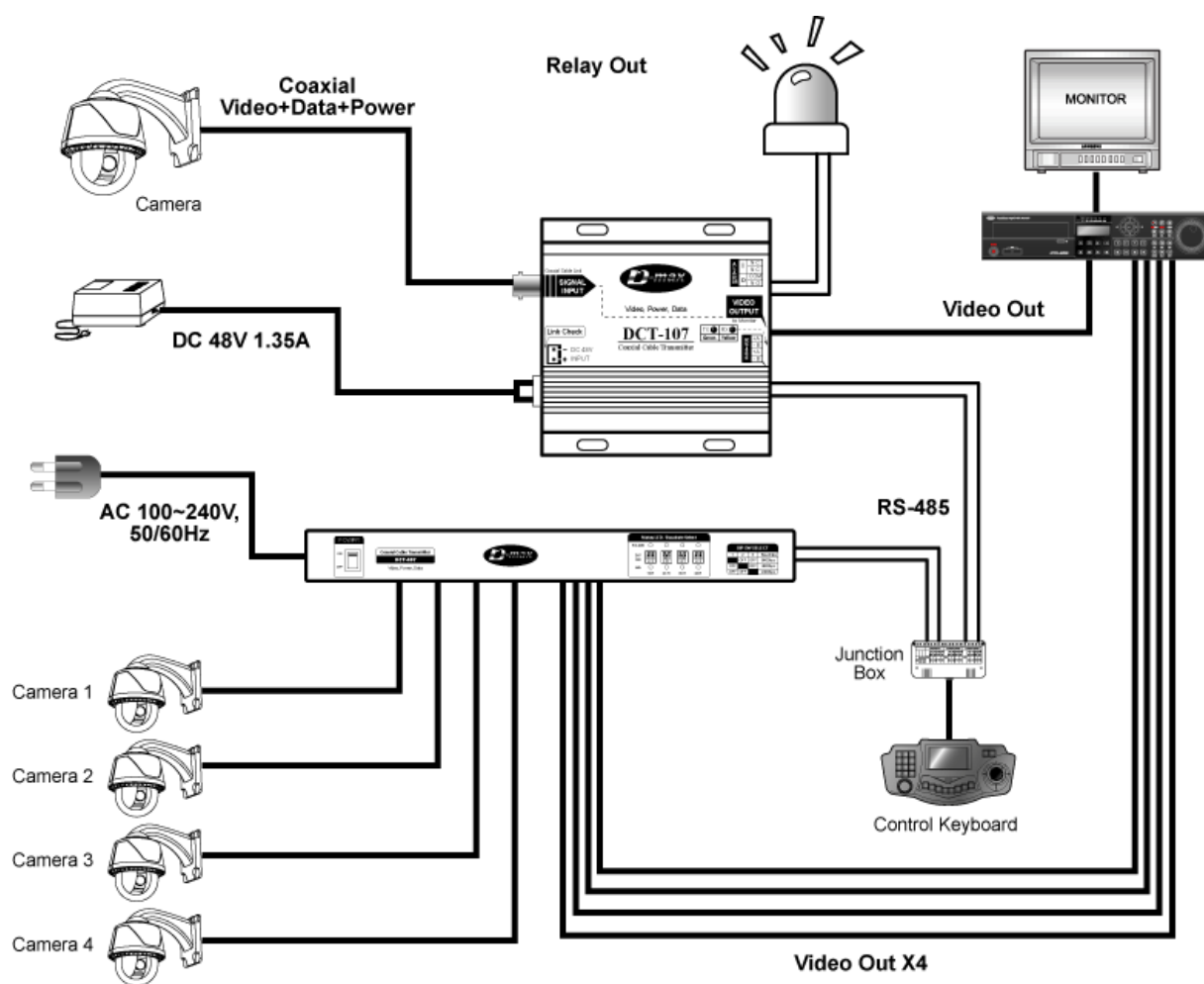


- 1) BNC CABLE: Connect to DVR or Monitor
- 2) BNC-F: Connect Coaxial Cable with CCTV Camera
- 3) 4P Terminal Block: ALARM OUT
 - Receiver (CAMERA) sends an Alarm signal to Transmitter (DCT-407). Then Transmitter's Relay controls the Output Device of Contact Point. (Normal Open -> When an Alarm signal input, the Output Device of Contact Point would be closed.)
- 3) 4P Terminal Block (RS-485 Interface)
 - RS-485 Interface : Connected with the Controller
 - ※ Please Check RS-485 "+" or RS-485 "-" At First. After That, Connect it with Device.
- 5) AC INLET: AC Power Code Input

3. Specification

| MODEL | | DCT-107 (1CH Transmitter) | |
|----------------------------|----------------|---------------------------|--|
| Video Output Signal | | CVBS 1.0Vp-p, 75Ω | |
| Power Consumption Input | | DC 48V 1.35A | |
| Working verify checking | | Tx: Green/ Rx: Yellow | |
| Transmission distance | | Automatic controlled | |
| Connect Port | RF In & Output | | BNC-F / BNC-M Harness (60Cm) |
| | DATA | | RS-485 / One Way, T.Block |
| | Alarm | Output 1CH | T.Block (Photo MOS Relay, Capacity 60V 0.5A) Normal Open type |
| Operating Temp. & Humidity | | -10℃ ~ +50℃ / 0 ~ 80% | |
| Material / Weight | | Aluminium / 240g | |
| Dimension | | 93(W) x 92(H) x 35(D)mm | |
| MODEL | | DCT-407 (4CH Transmitter) | |
| Video Output Signal | | CVBS 1.0Vp-p, 75Ω | |
| Power Consumption Input | | AC 100~240V, 50/60Hz | |
| Working verify checking | | Tx: Green/ Rx: Red | |
| Transmission distance | | Automatic controlled | |
| Connect Port | RF In & Output | | BNC-F / BNC-M Harness (60Cm) |
| | DATA | | RS-485 / One Way, T.Block |
| | Alarm | Output 1CH | T.Block (Photo MOS Relay, Capacity 60V 0.5A) Normal Open type |
| Operating Temp. & Humidity | | -10℃ ~ +50℃ / 0 ~ 80% | |
| Material / Weight | | Steel / 3.5Kg | |
| Dimension | | 430(W) X 44(H) X 350(D)mm | |

4. Configuration (System Diagram)



DCT-107



DCT-407

(Front)



(Rear)



<http://www.d-max.co.kr>